

axes of rotation of the two rollers relative to each other is fixed. In this respect, differences or tolerances of the cable diameter can also be optimally compensated with this arrangement.

[0018] In a construction in which the charging cable is guided through a passage in the side of the holding space to the electrical storage device, a strain relief device for the charging cable is expediently provided in or at this passage such that no damage can occur to the connecting region between the end of the charging cable and the electrical storage device when the charging cable is pulled out from the holding space.

[0019] If the holding device for the charging cable is provided in the region of the trunk, the upper plate of the cable-holding device expediently forms the cargo area in the trunk of the vehicle. In order to be able to remove the charging cable comfortably with such a construction, a flap which can be pivoted upward or removed to withdraw the charging cable may be arranged on that side of the upper plate which faces the rear of the vehicle.

[0020] In this construction, the plug which is arranged on the charging cable and can be connected to the external power supply device can be fastened detachably on the underside of the flap. It is consequently advantageous that, when the flap is opened, the plug of the charging cable is always ready to be taken hold of comfortably.

[0021] In such an embodiment, the cable must be removed upward from the horizontal arrangement. In order to make this easier, a rotatably mounted deflection roll, by means of which the charging cable can be deflected upward from the horizontal position, can be arranged in the region of the flap opening. Particularly comfortable removal and reinsertion of the charging cable is consequently possible.

BRIEF DESCRIPTION OF DRAWINGS

[0022] The disclosure is illustrated by way of examples in the drawings and described below in detail with the aid of the drawings, in which:

[0023] FIG. 1 shows a first exemplary embodiment of the cable-holding device according to the disclosure in a perspective view,

[0024] FIG. 2 shows one of the guide rollers or transport rollers in an enlarged view,

[0025] FIG. 3 shows a second exemplary embodiment of the cable-holding device according to the disclosure,

[0026] FIG. 4 shows a third exemplary embodiment of the cable-holding device according to the disclosure,

[0027] FIG. 5 shows the same view as in FIG. 4 in an exploded view, and

[0028] FIG. 6 shows a partial section through the cable-holding device according to FIG. 4 and FIG. 5 in an enlarged view.

DETAILED DESCRIPTION

[0029] A cable-holding device 1 according to the disclosure is provided for electric and hybrid vehicles which are provided with a rechargeable storage device, not illustrated in the drawings, for electrical energy. The storage device here has a charging cable 2 which can be connected to an external power supply device for the purpose of charging the storage device and remains permanently connected to the

vehicle. When not in use, the charging cable 2 is stowed in the cable-holding device 1, fixedly connected to the vehicle, of the respective vehicle.

[0030] According to FIG. 1 of the drawings, the cable-holding device 1 according to the disclosure has a closed holding space 3 for the charging cable 2. The cable holding space 3 is here delimited by a lower plate 4 and an upper plate 5. The clear height of this holding space 3 is only slightly greater than the diameter of the charging cable 2. The outer edge between the two plates 4 and 5 is closed on all sides. A holding surface 6, provided in the holding space 3, for the charging cable 2 on the lower plate 4 is dimensioned to be large enough that the whole charging cable 2 can be held in the form of loops. The holding space 3 has a side through opening 7 for the charging cable 2 through which the charging cable end 2.1 can be pulled for connection to an external power supply device and be pushed in again after the charging procedure.

[0031] In the exemplary embodiment illustrated in FIG. 1, the holding space 3 is formed by a depression, which forms the holding space 3, being provided in the lower plate 4. The upward projecting edge of the lower plate 4 then defines the height of the holding space 3 after the upper plate 5 has been applied and fastened. Because the clear height of the holding space 3 is only slightly greater than the diameter of the charging cable, when the charging cable is pushed in through the side through opening 7, the loops cannot slide over each other and instead are lined up one behind the other within a plane. If the charging cables were to all have exactly the same diameter, the clear height could be dimensioned precisely such that the cable diameter fits therein with a small amount of play. However, because the cable diameters vary within a certain tolerance range, this tolerance range should be taken into account when setting the clear height between the plates 4 and 5. The only important thing is that the loops of the charging cable do not slide over one another when it is introduced into the holding space 3.

[0032] The cable-holding device 1 can be installed anywhere in the respective vehicle where a corresponding mounting surface is available. A suitable place is, for example, the trunk, wherein the upper plate 5 of the cable-holding device 1 forms the cargo area in the trunk of the vehicle. In this position, the holding surface 6 is arranged approximately horizontally such that the charging cable 2 can optimally lie in loops when it is pushed into the holding space 3. The holding space 3 here has an essentially rectangular design such that there is sufficient space for the formation of loops and the required cable length can be accommodated in the cable-holding device.

[0033] In the exemplary embodiment illustrated in FIG. 1, the side through opening 7 is delimited by two rotatable guide rollers or transport rollers 8.1 and 9.1, the axes 10.1 of which are arranged perpendicular to the direction in which the charging cable 2 passes through, i.e. vertically when the plates are positioned horizontally.

[0034] Such a guide roller or transport roller, the bearing surface 11 of which between which the charging cable 2 is guided is formed in concave fashion in the manner of a pulley, is illustrated in FIG. 2. The bearing surface 11 is here roughened or toothed in order to obtain a good frictional contact between the two rollers 8.1 and 9.1 and the charging cable 2.

[0035] In the exemplary embodiment according to FIG. 1, at least one of the two guide rollers or transport rollers 8.1